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- 1 1. A device control device comprising:
 - 2 speech recognition means which acquires speech data representing a speech and
 - 3 specifies words candidates included in the speech by performing speech recognition on the
 - 4 speech data and calculates a likelihood of each of the specified words candidates;
 - 5 specifying means which specifies words included in the speech based on the
 - 6 likelihoods calculated by the speech recognition means and specifies a content of the speech
 - 7 uttered by an utterer based on the words specified; and
 - 8 a database which stores preceding controls, subsequent controls, and weighting
 - 9 factors, each of which is associated with one another; and
 - 10 process execution means which specifies content of a subsequent control to be
 - 11 performed on an external device to be a control target based on a currently executed control, a
 - 12 weighting factor stored in association with the currently executed control and the content of the
 - 13 uttered speech specified by the specifying means, and performs the subsequent control.
- 1 2. The device control device according to claim 1, wherein the speech
- 2 recognition means includes speech part specifying means which specifies a part of speech of the
- 3 specified words, and
- 4 the specifying means specifies a content of the speech uttered by the utterer based
- 5 only on those of the words specified by the speech recognition means which are specified as a
- 6 predetermined part of speech.
- 1 3. The device control device according to claim 2, wherein the specifying
- 2 means discriminates whether or not a combination of a plurality of words in the words specified
- 3 by the speech recognition means which is specified as a predetermined part of speech meets a
- 4 predetermined condition, and specifies a content of the speech uttered by the utterer based on a
- 5 discrimination result.

1 4. The device control device according to claim 1, wherein the specifying
2 means holds information which associates words with one or more categories, and specifies a
3 content of the speech uttered by the utterer based on a category in which the words specified by
4 the speech recognition means are classified.

1 5. The device control device according to claim 1, wherein the specifying
2 means holds correlation information which associates words of different meanings or different
3 categories with each process of the process execution means , and specifies a content of the
4 speech uttered by the utterer based on a combination of those words or categories which are
5 specified by the speech recognition means , and the correlation information.

1 6. The device control device according to claim 1, wherein the specifying
2 means holds information which associates words with one or more categories, and specifies a
3 content of the speech uttered by the utterer based on a category in which a plurality of words
4 specified by the speech recognition means are commonly classified.

1 7. The device control device according to claim 1, wherein the specifying
2 means holds a plurality of words assigned to respective processes of the process execution means
3 , and performs a corresponding process when at least one of the words specified by the speech
4 recognition means is a word assigned to the process.

1 8. The device control device according to claim 1, wherein when a meaning
2 of an input speech is not discriminatable, the specifying means prompts an input in a more
3 discriminatable expression.

1 9. The device control device according to claim 1, further comprising
2 information acquisition means which acquires information from an external device, and
3 wherein the specifying means selects an output content to be output based on the
4 information acquired by the information acquisition means .

1 10. A device control device according to claim 1 further comprising:
2 information acquisition means which acquires information via predetermined
3 communication means ; and
4 speech output means which outputs a speech based on the information acquired
5 by the information acquisition means ,
6 whereby when the control specified by the process execution means is to output
7 information acquired by the information acquisition means , the speech output means outputs a
8 speech based on the information.

11-18. (Canceled)

1 19. The device control device according to claim 10,
2 wherein process specifying means specifies a process to be performed based on
3 the specified content of the uttered speech.

20-28. (Canceled)

1 29. The device control device according to claim 1, wherein the process
2 execution means includes means which, when the process specified as a process to be performed
3 is a process of presenting information externally received to the utterer, performs the
4 presentation by generating a speech which reads out the information.

30. (Canceled)

1 31. The device control device according to claim 1 so constructed as to be
2 mountable on a vehicle having an on-vehicle device mounted thereon, wherein the process
3 extension means specifies a content of control to be performed on the on-vehicle device based on
4 the specified content of the uttered speech, and performs the specified control.

32-38. (Canceled)

1 39. The device control device according to claim 31 further comprising:
2 information acquisition means which acquires information via predetermined
3 communication means ; and
4 speech output means which outputs a speech based on the information acquired
5 by the information acquisition means ,
6 whereby when the control specified by the process execution means is to output
7 information acquired by the information acquisition means , the speech output means outputs a
8 speech based on the information.

1 40. The device control device of claim 1 incorporated in a navigation device
2 so constructed as to be mountable on a vehicle,
3 wherein the process execution means specifies a content of a navigation process
4 to be performed based on the specified content of the uttered speech, and performs the specified
5 navigation process.

41-47. (Canceled)

1 48. The device control device according to claim 40 further comprising:
2 information acquisition means which acquires information via predetermined
3 communication means ; and
4 speech output means which outputs a speech based on the information acquired
5 by the information acquisition means ,
6 whereby when the navigation process specified by the process execution means is
7 to output information acquired by the information acquisition means , the speech output means
8 outputs a speech based on the information.

1 49. The device control device of claim 1 incorporated in an audio device,
2 wherein the process execution means specifies a content of a speech process to be
3 performed based on the specified content of the uttered speech, and performs the specified

4 speech process, or controls an external device in such a way as to cause the external device to
5 perform the specified speech process.

50-56. (Canceled)

1 57. The device control device of claim 49 further comprising:
2 information acquisition means which acquires information via predetermined
3 communication means ; and
4 speech output means which outputs a speech based on the information acquired
5 by the information acquisition means ,
6 whereby when the speech process specified by the process specifying means is to
7 output information acquired by the information acquisition means , the speech output means
8 outputs a speech based on the information.

1 58. A device control method comprising a computer performer:
2 a speech recognition step of acquiring speech data representing a speech and
3 specifying words candidates included in the speech by performing speech recognition on the
4 speech data and calculating a likelihood of each of the specified words candidates;
5 a specifying step of specifying words included in the speech based on likelihoods
6 specified in the speech recognition step and specifying a content of the speech uttered by an
7 utterer based on the specified words; and
8 a process execution step of specifying content of a subsequent control to be
9 performed on an external device to be a control target based on a currently executed control, a
10 predetermined subsequent control, a weighting factor associated with the currently executed
11 control, and the specified content of the uttered speech, and performing the subsequent control.

1 59. The device control method according to claim 58 further comprising:
2 an information acquisition step of acquiring information via a predetermined
3 communication device; and

4 a speech output step of outputting a speech based on the information acquired in
5 the information acquisition step,
6 whereby when the control specified in the process execution step is to output
7 information acquired in the information acquisition step, a speech is output based on the
8 information in the speech output step.

60. (Canceled)

1 61. The device control method according to claim 10, wherein the process
2 execution step specifies a process to be performed based on the specified content of the uttered
3 speech.

62 and 63. (Canceled)

1 64. The device control method according to claim 58 for controlling an on-
2 vehicle device mounted on a vehicle,
3 wherein the process execution step specifies a content of control to be
4 performed on the on-vehicle device on the specified content of the uttered speech, and performs
5 the specified control.

1 65. The method according to claim 64 further comprising:
2 an information acquisition step of acquiring information via a predetermined
3 communication device; and
4 a speech output step of outputting a speech based on the information acquired in
5 the information acquisition step,
6 whereby when the control specified in the process execution step is to output
7 information acquired in the information acquisition step, a speech is output based on the
8 information in the speech output step.

1 66. The device control method of claim 58 for controlling a navigation device
2 mounted on a vehicle,
3 wherein the process execution step specifies a content of a navigation process to
4 be performed based on the specified content of the uttered speech, and performs the specified
5 navigation process.

1 67. The method according to claim 66 further comprising:
2 an information acquisition step of acquiring information via a predetermined
3 communication device; and
4 a speech output step of outputting a speech based on the information acquired in
5 the information acquisition step,
6 whereby when the navigation process specified in the process execution step is to
7 output information acquired in the information acquisition step, a speech is output based on the
8 information in the speech output step.

1 68. The device control method of claim 58 for controlling an audio device,
2 wherein the process execution step specifies a content of a speech process to be
3 performed based on the specified content of the uttered speech, and performs the speech process,
4 or controls an audio device in such a way as to cause the audio device to perform the specified
5 speech process.

1 69. The method of claim 68 further comprising:
2 an information acquisition step of acquiring information via a predetermined
3 communication device; and
4 a speech output step of outputting a speech based on the information acquired in
5 the information acquisition step,
6 whereby when the speech process specified in the process executing step is to
7 output information acquired in the information acquisition step, a speech is output based on the
8 information in the speech output step.

1 70. An information recording medium storing a program which allows a
2 computer to function as:

3 speech recognition means which acquires speech data representing a speech and
4 specifies words candidates included in the speech by performing speech recognition on the
5 speech data and calculates a likelihood of each of the specified words candidates;

6 specifying means which specifies words included in the speech based on
7 likelihoods calculated in the speech recognition means and specifies a content of the speech
8 uttered by an utterer based on the specified words

9 a database which stores preceding controls, subsequent controls, and weighting
10 factors, each of which are associated with one another therein; and

11 process execution means which specifies content of a subsequent control to be
12 performed on an external device to be a control target based on a currently executed control, a
13 weighting factor stored in association with the currently executed control, and the content of the
14 uttered speech specified by the specifying means, and performs the control.

1 71. The information recording medium according to claim 70 further
2 comprising a program causing the computer to function as:

3 information acquisition means which acquires information via predetermined
4 communication means ; and

5 speech output means which outputs a speech based on the information acquired
6 by the information acquisition means ,

7 whereby when the control specified by the process specifying means is to output
8 information acquired by the information acquisition means , the speech output means outputs a
9 speech based on the information.

72. (Canceled)

1 73. The information recording medium according to claim 71,
2 wherein the process execution means specifies a process to be performed based on
3 the specified content of the uttered speech.

74 and 75. (Cancelled)

1 76. The information recording medium according to claim 70, wherein the
2 computer is incorporated in an on-vehicle device control device so constructed as to be
3 mountable on a vehicle,
4 wherein the process execution means which specifies a content of control to be
5 performed on the on-vehicle device based on the specified content of the uttered speech, and
6 performs the control.

1 77. The information recording medium according to claim 76 further
2 comprising a program causing the computer to function as:
3 information acquisition means which acquires information via predetermined
4 communication means ; and
5 speech output means which outputs a speech based on the information acquired
6 by the information acquisition means ,
7 whereby when the control specified by the process execution means is to output
8 information acquired by the information acquisition means , the speech output means outputs a
9 speech based on the information.

1 78. The information recording medium according to claim 70, wherein the
2 computer is incorporated in a navigation device so constructed as to be mountable on a vehicle,
3 wherein the process execution means specifies a content of a navigation process
4 to be performed based on the specified content of the uttered speech, and performs the specified
5 navigation process.

1 79. The information recording medium according to claim 78 further
2 comprising a program causing the computer to function as:
3 information acquisition means which acquires information via predetermined
4 communication means ; and
5 speech output means which outputs a speech based on the information acquired
6 by the information acquisition means ,
7 whereby when the navigation process specified by the process execution means is
8 to output information acquired by the information acquisition means , the speech output means
9 outputs a speech based on the information.

1 80. The information recording medium according to claim 70,
2 wherein the process execution means specifies a content of a speech process to be
3 performed based on the specified content of the uttered speech, and performs the specified
4 speech process, or controls an external device in such a way as to cause the external device to
5 perform the specified speech process.

1 81. The information recording medium according to claim 80 further
2 comprising a program causing the computer to function as:
3 information acquisition means which acquires information via predetermined
4 communication means ; and
5 speech output means which outputs a speech based on the information acquired
6 by the information acquisition means ,
7 whereby when the speech process specified by the process execution means is to
8 output information acquired by the information acquisition means , the speech output means
9 outputs a speech based on the information.